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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,605	08/17/2001	Aftab Alam		5073

7590 11/18/2005
AFTAB ALAM
500 CLAYTON MEADOWS
ST. LOUIS, MO 63011

EXAMINER

NAGPAUL, JYOTI

ART UNIT PAPER NUMBER

1743

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/932,605	ALAM, AFTAB	
	Examiner	Art Unit	
	Jyoti Nagpaul	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9,11-16,18 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9,11-16,18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment filed on August 22, 2005 has been acknowledged. Claims 1-4,6-9,11-16 and 18-19 are pending.

Response to Amendment

Rejection of Claims 1-4,6-9,11-16 and 18-19 as being unpatentable over Kedar in view of Shepel in further view of Schellenberger has been *maintained* in light applicant's arguments.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claim 1-4,6-9,11-16 and 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kedar in view of Shepel in further view of Schellenberger.

Kedar discloses a device for application of liquid sample on a membrane (35). Kedar further discloses a plurality of reservoirs (16) formed with in a reservoir-rack (24) having an open end and an end opposite the open end that contains a capillary opening (34) where the open end is adapted to receive liquid samples. The capillary opening (34) of the reservoir is a micro-bore opening protruding as a capillary tip from the main body of the reservoir. (See Figure 5F) The capillary opening of the reservoir has opening orifice narrow enough to prevent the free flow of the liquid samples out of the reservoir under the force of gravity. (Col. 4, Lines 58-65) The capillary opening of the reservoir allows flow of the liquid sample from the reservoir in the membrane by capillary action. (Col. 5, Lines 48-52) Kedar also discusses the capillary opening of the reservoir allow flow of the liquid sample from the reservoir into the membrane by centrifugal action. (Col. 5, Lines 32-35) Kedar also discloses a reservoir-rack where the reservoir is above the membrane surface (35) thus having the capillary opening (34) of the reservoir touches and contacts the membrane. (See Figure 5F, Col. 12, Lines 17-26)

With respect to **Claims 3-4, 8 and 19**, Kedar fails to disclose reservoir-rack has an asymmetrical pattern of positions into which there reservoir can be placed and the reservoir-rack has asymmetrically located through-holes for positioning the reservoir in the reservoir-rack.

Schellenberger teaches microtiter plate/testing plate (12). According to Figure 1, it appears the reservoir rack (12) has asymmetrical pattern of positions.

In regards to **Claims 4-8 and 16** the reservoir-rack in Kedar and Shepel have a plurality of through-holes or positions that allows one to asymmetrically place reservoirs. (See Figure 5) The positions of the reservoir-rack are arranged in a grid pattern that allows positioning reservoirs in columns and rows compatible with the application heads of multi-sample pipetting devices common in the field and industry. The reservoir-rack may be shifted over infinite positions over the membrane with the frame to produce infinite patterns of drops on the membrane.

Kedar fails to disclose a frame for securing the membrane for application of the liquid samples. Kedar also fails to disclose a reservoir rack that consists of positions for at least 96 individual reservoirs.

Shepel discloses a frame consisting of a cover plate/frame 2 (12) and a filter base/frame 1 (2) to confine a membrane in a sandwich-like supported relationship. (See Col. 4, Lines 52-56)

Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kedar to include the frames of Shepel and the asymmetrical pattern positions of Schellenberger in order to secure the

membrane. It would also have been obvious to modify the device of Kedar to include the features of Shepel and the asymmetrical pattern positions of Schellenberger to include 96 individual reservoirs in order to obtain a more efficient process. In microtiter plates it is conventionally known to have 96 individual reservoirs.

Response to Arguments

5. Applicant's arguments filed on August 22, 2005 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

According to applicant's Figures and specification, Schellenberger clearly has equivalent teachings of a reservoir rack having asymmetrical pattern of positions. (See Figure 1) As shown in Figure 1, the asymmetrical pattern of positions are located where the distance on the right hand side has a wider margin compared to the distance on the left hand side of the testing plate (12). This is clearly equivalent to the teachings of an asymmetrical pattern of positions as shown in Figure 3B of applicant's drawings.

Conclusion


6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Nagpaul whose telephone number is 571-272-1273. The examiner can normally be reached on Monday thru Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jill Warden
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